

**Abstract**

A voltage divider (102) for high voltage and other applications uses a high voltage impedance element (104) and a low voltage impedance element (106) to isolate a sample node (110) from which to measure current, voltage, frequency response and other characteristics. The high voltage impedance element (104) includes a resistive network for reducing high voltages, for instance power line voltages of 20kV or more, down to instrument levels to take measurements on insulation or other materials. The high voltage impedance element (104) is surrounded by one or more capacitive guard elements (118) which shunt stray capacitive currents to ground, improving frequency response and other characteristics. The voltage divider (102) be connected to a current receiver (112) for purposes of instrumentation.

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